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ART UNIT	PAPER NUMBER
2152	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/963,806	WILSON ET AL.	
	Examiner	Art Unit	
	Carolyn F. Fleary	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 September 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-66* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-66* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 September 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Specification

1. The disclosure is objected to because of the following informalities:

a. Page 4 line 28 recites "Router 4", however "Router 4" is not shown in the drawings provided. It is assumed that the language is regarding Router 10.

b. Page 5 line 29 recites "Chassis 24", however "Chassis 24" is not shown in the drawings provided. It is assumed that the language is regarding Chassis 26.

Appropriate correction is required.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "system module" and "client interface" recited in claims 38, 52, 58,64,65,66, and related dependent claims must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be

removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

c. Claims 20,29, 34, 38, 52, 58,64,65,66 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

i. In regards to claim 38 recites the limitation "client interface" in line 2. There is insufficient antecedent basis for this limitation in the claim.

ii. In regards to claim 52 recites the limitation "client interface" in line 2. There is insufficient antecedent basis for this limitation in the claim.

iii. In regards to claim 58 recites the limitation "client interface" in line 2. There is insufficient antecedent basis for this limitation in the claim.

iv. In regards to claim 64recites the limitation "client interface" in line 2. There is insufficient antecedent basis for this limitation in the claim.

v. In regards to claim 65 recites the limitation "client interface" in line 2. There is insufficient antecedent basis for this limitation in the claim.

vi. In regards to claim 66 recites the limitation "client interface" in line 2. There is insufficient antecedent basis for this limitation in the claim.

vii. Claim 20 recites the limitation "processor readable medium" in line 1. There is insufficient antecedent basis for this limitation in the claim.

viii. Claim 29 recites the limitation "processor readable medium" in line 1. There is insufficient antecedent basis for this limitation in the claim.

ix. Claim 34 recites the limitation "processor readable medium" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim R j ctions - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

a. Claims 20, 29, and 34 rejected under 35 U.S.C. 101 because the claimed invention is directed toward non-statutory subject matter in view of the specification. The claimed invention as a whole must accomplish a practical application. That is, it must produce a useful, concrete and tangible result. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. A process that consists solely of the manipulation of an abstract idea is not concrete or tangible.

Claims 20, 29, and 34 recite, "a processor-readable medium contain instructions for causing a programmable processor" for performing certain steps in a process. The specification, beginning on page 4, line 29 recites "a computer readable-medium may comprise computer storage media and/or communications media." The specification goes on to recite, beginning on page 5 line 7, that "communication media typical embodies ... data in a modulated data signal such as a carrier wave or other transport medium. Computer readable media may also include combinations of any media described above." The content of specification as described above is directed

to non-statutory matter. Therefore in view of the specification claim 20, 29 and 34 are non-statutory. (See MPEP 2106)

b. Claims 38, 52, 58, are rejected under 35 U.S.C. 101 because the claimed invention is directed toward non-statutory subject matter in view of the specification. The matter that comprises these devices (i.e. apparatus) are directed toward to functional descriptive material. The specification beginning of page 4 indicates that the recited device consists only of computer programs. Functional descriptive material consists of data structures and computer programs that impart functionality when employed as a computer component. Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process. (See MPEP 2106 A .IV. (b))

All dependent claims not specifically mention above are rejected to by virtue of their dependency.

To expedite a complete examination of the instant application the claims rejected under 35 U.S.C 101 (non-statutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 38 is indefinite because "client interface" is recited. For the purposes of the following art rejections, it is assumed that:

- client interface is referring to "command line interface" (CLI) or interface cards (IFCs) as shown in figures 2 and figure 1 respectively.

3. Claims 20 is indefinite because "client interface" is recited. For the purposes of the following art rejections, it is assumed that:

- Processor-readable medium is referring to computer-readable medium.

4. Claim 1, 2, 6, 7, 10, 20, 21,25,26, 38, 39,43, 44, and 64 are rejected under 35 U.S.C. 102(b) as being anticipated by Abjanic (US 6,732,175).

a. **In regards to Claim 1**, Abjanic discloses a method comprising:

- receiving output from a router (i.e. XML director, figure 1-#140) in a format describing a type of the output (i.e. xml messages) (col 4 lines 50-67, col 9 lines 56-67);
- querying a server selected as a function of the type of the output (figure 5, col 4 lines 39-43, col 4 lines 61-67, col 5 lines 1-8, col 9 lines 29 -35); and

- providing a response from the server to a user (bidirectional arrows figure 1-Clients; servers (150, 160, 170)).

Abjanic teaches a system that includes XML director (i.e. router) that processes data in self-describing format (i.e. xml) in communication with servers (figure 1). Abjanic teaches Document Type Definition (DTD) indicating the proper format for tags, defines XML. There may be many types of definitions, for example company 1 and 2 can define its own xml tags; CXML and BXML respectively and there also exists WML (wireless communications) that defines yet another set of tags for the communication and exchange of data all of which are generally incompatible with each other languages. For instance CXML would not be able to communicate with a router that expects WML (col 11 lines 33-47). An advantage of XML is that it separates actual data from the presentation of data (col 1, lines 59-62) and permits a router to route data as a function of the data regardless of the type of XML based language. The router performs this by examining or recognizing one or more specific tags associated with the data (col 11, lines 54-61) which permits the router to analyze and make routing decisions for the output and thus relieving the server of additional processing overhead (col 5 lines 25-27). Although Abjanic teaches querying server based on output in a self-describing format, Abjanic is silent on processing response from server to user. However, this feature is deemed to be inherent in the Abjanic system as figure 1 shows the bi-directional arrows indicating bidirectional communications between client(s), router, and server (s). The

Abjanic system would be useless if responses where not sent between server(s), router and clients.

b. **In regards to claim 2**, Abjanic teaches the method of claim 1 wherein:

- the output is a numeric address (col 9 line 30- Table)

Abjanic teaches output that contain IP address when messages to the appropriate server (col 7 lines 13-67).

c. **In regards to Claim 6**, Abjanic discloses the method of claim 1, wherein:

- the output is received in an XML-tagged format (col 4 lines 61-67, col 5 lines 1-7, col 6 lines 7-22).

d. **In regards to claim 7,** Abjanic discloses the method of claim 1, further comprising:

rendering the output in text format (i.e. XML) before querying the server (col 4 lines 61-67, col 5 lines 1-7, col 6 lines 7-22).

Refer to claim 1 on what Abjanic teaches.

e. In regards to claim 10, Abjanic discloses the method of claim 1,

- wherein querying a server selected as a function of the type of the output composes invoking a command line interface (CLI) module to issue a query to the server.

Abjanic teaches the router (figure 1-#140) creates a query and directs the message to the corresponding server as indicated by the configuration pattern (col 6 lines 63-66, col lines 1-2) by way of the content based switching and decision logic (figure 3-#316) to the server (col 8 lines 53-67).

Refer to claim 1 on what Abjanic teaches.

f. **In regards to claim 20,** Abjanic discloses a processor-readable medium (col 8 lines 54-67) containing instructions (i.e. logic) for causing a programmable processor to:

- receive output in a format describing a type of the output (col 4 lines 50-67, col 9 lines 56-67);
- query a server selected as a function of the type of the output (figure 5, col 4 lines 39-43, col 4 lines 61-67, col 5 lines 1-8, col 9 lines 29 - 35); and
- provide a response from the server to a user (bidirectional arrows figure 1-Clients(Users); servers (150, 160, 170)).

Refer to claim 1 in regards to what Abjanic teaches.

g. **In regards to claim 21**, Abjanic discloses the processor-readable medium of claim 20:

- wherein the output is a numeric address (col 9 line 30- Table).

Refer to claim 1 on what Abjanic teaches.

h. **In regards to claim 25,** Abjanic discloses the processor-readable medium of claim 20, wherein:

- the output is received in an XMl-tagged format (col 4 lines 61-67, col 5 lines 1-7, col 6 lines 7-22).

Refer to claim 1 on what Abjanic teaches.

i. **In regards to claim 26,** Abjanic discloses the processor-readable medium of claim 20, further containing instructions for causing the programmable processor to:

render the output in text format (i.e. XML) before querying the server (col 4 lines 61-67, col 5 lines 1-7, col 6 lines 7-22).

Refer to claim 1 on what Abjanic teaches.

a. **In regards to claim 38,** Abjanic discloses a routing device comprising:

- a client interface to receive an operational request from a network router client (**figure 1-#140, figure 3)**; and
- a system module to process the operational request and to provide output to the client interface in a format that describes a type of the output (**figure 3-#316, 320)**,
- wherein the client interface is configured to query a server selected as a function of the type of the output **(figure 3-#314, 316)** and to

provide a response from the server to the network router client **(figure 1-bidirectional arrows)**.

Abjanic teaches a traffic manager (router system) that contains and XML director. The traffic manager receives request from network clients as shown in figure 1. Figure 3 shows the internal components of the traffic management systems XML director. The requests from the network are processed by the XML director from the network via the xml director's interface as shown in figure 3. Messages may be received in xml, which is a self-describing tagged language. Abjanic teaches that creates queries based on the content of the XML data. The traffic manager (i.e. router) performs this by examining or recognizing one or more specific tags associated with the xml data (col 11, lines 54-61) which permits the router to analyze and make routing decisions for the output and thus relieving the server of additional processing overhead (col 5 lines 25-27). Although Abjanic teaches for querying server based on output in a self-describing format, Abjanic is silent on processing response from server to the network router client. However, this feature is deemed to be inherent in the Abjanic system as figure 1 shows the bi-directional arrows indicating bi-directional communications between clients, traffic manager (i.e. router system) and server(s). The Abjanic system would be useless if responses where not sent between components in reaction to received requests.

b. **In regards to claim 39,** Abjanic discloses the routing device of claim 38,

- wherein the output is a numeric address (col 9 line 30- Table, col 7 lines 1 3-67)

Abjanic teaches output sent to the appropriate server that contains IP addresses (col 7 lines 13-67).

c. **In regards to claim 43,** Abjanic discloses the routing device of claim 38,

- wherein the output is provided to the client interface in an XML-tagged format (col 4 lines 61-67, col 5 lines 1-7, col 6 lines 7-22).

d. **In regards claim 44, Abjanic discloses t**he routing device of claim 38,

- wherein the client interface is further configured to render the output in text format before querying the server (col 4 lines 61-67, col 5 lines 1-7, col 6 lines 7-22).

e. **In regards to claim 64**, Abjanic discloses a system comprising:

- a client interface to receive an operational request from a network router client (figure 1-# 140, figure 3);
- a system module to process the operational request and to provide output to the client interface in a format that describes a type of the output (i.e. xml) (figure 3-#312, 316, 320); and

- a server (figure 1-#1650,160,170) to provide a response to the client interface, wherein the client interface is configured to query the server and to provide the response to the network router client (figure 1-bidirectional arrows).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 38, 52, 58,64,65,66 are indefinite because "client interface" is recited. For the purposes of the following art rejections, it is assumed that:

- client interface is referring to "command line interface" (CLI) or interface cards (IFCs) as shown in figures 2 and figure 1 respectively.

3. Claims 20, 29, 34 re indefinite because "client interface" is recited. For the purposes of the following art rejections, it is assumed that:

- Processor-readable medium is referring to computer-readable medium.

3. Claim 3, 4, 11-13, 16,17, 22, 23, 29, 30, 31, 34, 41, 52, 58, 65, and 66 are rejected over Abjanic (US 6,732,175) in view of Ansell et al. (US 6,826,617)

j. **In regards to claim 3**, Abjanic fails to teach the method of claim 2, further comprising:

- querying a name server;
- receiving from the name server a symbolic name associated with the numeric address; and
- providing the symbolic name to the user.

Ansell et al. teaches

- querying a name server (figure 1-#116);
- receiving from the name server a symbolic name associated with the numeric address (figure 2); and
- providing the symbolic name to the user (col 8 lines 36-40).

Ansell et al. teaches that the domain is used to estimate the geographical location information. The domain name is retrieved using reverse domain name server (DNS) query (col 3 lines 27-32). Ansell et al. teaches a territorial restriction system (i.e. router fig 1-#100) that determines the geographical location of the client (i.e. user) via the IP address (col 5 lines 8-12) by reference to allocation databases (i.e. name servers – figure 1-# 116). The resolver of the router issues the query to the DNS database (figure 1-#106). A DNS database stores information associating IP address with domain names (col 8 lines 33-34). The revolver retrieves a domain name corresponding to the IP address from the DNS server (col 8 lines 1-3) and returns it to the source of the inquiry (i.e. user col 6 lines 18-21).

It would have been obvious to one of ordinary skill in the art at time of the invention to retrieve the symbolic name of and IP address in order to retrieve a domain names (i.e. symbolic name) that are more meaningful and easier to remember than normal IP address (col 8 lines 36-40)

k. **In regards to claim 4,** the method of Claim 2 as modified above fails to disclose, further comprising:

- querying an owner database,
- receiving from the owner database an identification of an owner associated with the numeric address; and
- providing the identification of the owner to the user.

Ansell et al. teaches user client request for information. In response to this request the system, by way of figure 1-#150 (server client) and figure 1-100 (router) proceed to identify the geopolitical territory that the user client resides. The system compares the location of the user client to a list of territories for which the request is available. The request is delivered only if the client is located in a geopolitical territory for which the request is available. As part of this method of determining territory, Ansell et al. teaches querying an owner database for information associated with and IP address. Figure 1 shows three databases (110, 114) that are queried by the router system (#100) to obtain the identification of an owner associated with and IP address. The databases store information specifying what entity various IP address are allocated

(i.e. owner) and includes contact information (col 5 lines 28-36). Upon request these database return data including the entity, geopolitical territory and contact information pertaining to the IP address.

One of ordinary skill in the art at time of the invention would clearly find it advantageous to have the router device of Abjanic query an owner database and provider owner information to a user in order to permit the identification of systems within a specific geopolitical territory that user is permitted to interact with in order to stay in compliance with any export control, import control, marketing or business advantages (col 1 lines 65-67, col 2 lines 1-10).

l. **In regards to claim 11,** Abjanic discloses, a method for processing an address, the method comprising:

- receiving a numeric address in a self-describing format (col 7 lines 13-67);

Abjanic teaches a system that includes XML director that processes data in self-describing format (i.e. xml) in communication with servers (figure 1). An advantage of XML is that it separates actual data from the presentation of data (col 1, lines 59-62) and permits a router to route data as a function of the data regardless of the type of XML based language. The router performs this by examining or recognizing one or more specific tags associated with the data (col 11, lines 54-61) which permits the router to analyze and make

routing decisions for the output and thus relieving the server of additional processing overhead (col 5 lines 25-27).

Abjanic fails to disclose:

- querying a name server to resolve the numeric address to a symbolic name; and
- providing the symbolic name to a user.

Ansell et al. teaches on what Abjanic fails to teach. Refer to claim 3 discussions above on what Ansell et al. teaches in regards to resolving numeric addresses.

One of ordinary skill in the art at time of the invention would find it advantageous to query the server using the IP address in an XML format in order to reduce processing time by the server and retrieve a symbolic name for the IP address in order to present the user with information that are more meaningful and easier to remember than normal IP address (Ansell col 8 lines 36-40).

m. **In regards to claim 12**, Abjanic discloses the method of claim 11 as modified above,

- wherein the numeric address is received in an XML tagged format.

Refer to claim 11 for what Abjanic teaches. One of ordinary skill in the art at time of the invention would find it advantageous to query the server using the IP address in an XML format in order to reduce processing time by the server (col 5 lines 25-27).

n. **In regards to claim 13,** Abjanic discloses the method of claim 11 further comprising:

- rendering the numeric address in text format (i.e. Abjanic -xml format) before querying

Abjanic fail to disclose:

- before querying the name server.

Ansell teaches resolving the IP address before querying the domain name server (figure 1).

Refer to claim 11 for more on what Abjanic and Ansell et al. teach.

o. **In regards to claim 16,** Abjanic discloses a method for processing an address, the method comprising:

- receiving a command in a **user interface module (figure 3-#312);**
- invoking a system module to process the command (figure 3-#316);
- receiving an XML-tagged IP address from the system module (figure 3-# 320);

Abjanic fail to disclose:

- querying a domain name server to resolve the IP address to a symbolic name; and
- providing the symbolic name to a user.

Ansell discloses that which Abjanic fails to teach. Refer to claim 11 for what Ansell teaches.

p. **In regards to claim 17**, Abjanic discloses the method of claim 16 further comprising:

- rendering the IP address in text format (i.e. Abjanic – xml)

Abjanic fail to disclose

- rendering the IP address before querying the domain name server.

Ansell teaches resolving the IP address before querying the domain name server (figure 1).

Refer to claim 13 for more on what Abjanic and Ansell et al. teach.

f. **In regards claim 22,** Abjanic fails to teach the processor-readable medium of claim 21 as modified above, further containing instructions for causing the programmable processor to:

- query a name server;
- receive from the name server a symbolic name associated with the numeric address, and
- provide the symbolic name to the user.

Ansell teaches the logic within the resolver component of the system (i.e. router) that contains logic (i.e. instructions) for causing query of a name server and receipt of a symbolic name (Ansell et al. figure 1, figure 2).

Refer to claim 3 for what Ansell et al teaches.

g. **In regards to claim 23,** Abjanic fails to disclose the processor-readable medium of claim 20, further containing instructions for causing the programmable processor to:

- query an owner database,
- receive from the owner database an identification of an owner associated with the numeric address; and
- provide the identification of the owner to the user.

Ansell et al. identifies a revolver (figure 1-#106) within a routing system that process IP address against various owner databases. Ansell et al. identifies owner databases (figure 1-#112,110,114,116) that contain location and contact information (i.e. owner) associated with the IP address (col 5 lines 19-36, col 7 lines 40-46). Refer to claim 4 discussions on what Ansell et al. teaches.

h. **In regards to claim 29**, Abjanic discloses a processor-readable medium containing instructions for causing a programmable processor to:

- receive a numeric address in a self-describing format;

Abjanic fails to disclose:

- query a name server to resolve the numeric address to a symbolic name; and
- provide the symbolic name to a user.

Ansell et al. teaches on what Abjanic fails to teach. Refer to claim 11 discussions above on what Ansell et al. teaches in regards to resolving numeric addresses to a user.

i. **In regards to claim 30**, Abjanic teaches the processor-readable medium of claim 29,

- wherein the numeric address is received in an XML-tagged format (col 7 lines 13-6).

Refer to claim 12 for what Abjanic teaches.

j. **In regards to claim 31,** Abjanic disclose the he processor-readable medium of claim 29, further containing instructions for causing the programmable processor to:

- render the numeric address in text format (i.e. xml format) before querying

Abjanic teaches a system that includes XML director that processes data in self-describing format (i.e. xml) in communication with servers (figure 1). Refer to claim 11 on what Abjanic teaches in regards to xml format.

Abjanic fail to disclose:

- before querying the name server.

Ansell et al. teaches a name server (i.e. DNS server) receiving requests, which contain IP address, from the router (figure 1-#106, col 3 lines 27-32). Refer to Claim 3 discussion on what Ansell et al. teaches in regards to DNS

server. One of ordinary skill in the art at time of the invention would find it advantageous to query the server using the IP address in an xml format in order to reduce processing time by the server (col 5 lines 25-27).

k. **In regards to claim 34**, Abjanic discloses a processor-readable medium (col 8 lines 54-67) containing instructions (i.e. logic) for causing a programmable processor to:

- receive a command in a user interface module (figure 3-#312),
- invoke a system module to process the command (figure 3-#316);
- receive an XML-tagged IP address from the system module (figure 3-#320),

Abjanic fail to disclose:

- query a domain name server to resolve the IP address to a symbolic name; and
- provide the symbolic name to a user.

Ansell et al. discloses that which Abjanic fails to teach. Refer to claim 11 for what Ansell et al. teaches.

l. **In regards to claim 41**, Abjanic fails to disclose the routing device of claim 39, wherein the client interface is further configured to:

- query an owner database;
- receive from the owner database an identification of an owner associated with the numeric address; and
- provide the identification of the owner to the user.

Ansell et al. teaches user client request for information. In response to this request the system, by way of figure 1-#150 (server client) and figure 1-100 (router) proceed to identify the geopolitical territory that the user client resides. The system compares the location of the user client to a list of territories for which the request is available. The request is delivered only if the client is located in a geopolitical territory for which the request is available. As part of this method of determining territory, Ansell et al. teaches querying an owner database for information associated with and IP address. Figure 1 shows three databases (110, 114) that are queried by the router system (#100) to obtain the identification of an owner associated with and IP address. The databases store information specifying what entity various IP address are allocated (i.e. owner) and includes contact information (col 5 lines 28-36). Upon request these database return data including the entity, geopolitical territory and contact information pertaining to the IP address.

One of ordinary skill in the art at time of the invention would clearly find it advantageous to have the router device of Abjanic query an owner database and provider owner information to a user in order to permit the identification of systems within a specific geopolitical territory that user is permitted to interact with in order to stay in compliance with any export control, import control, marketing or business advantages (col 1 lines 65-67, col 2 lines 1-10).

m. **In regards t claim 52** A routing device comprising:

- a client interface to receive an operational request from a network router client (figure 1-# 140, figure 3); and
- system module to process the operational request and to provide a numeric address to the client interface in a self-describing format (figure 3-#316, 320), wherein

Refer to claim 38 above for more on what Abjanic teaches.

Abjanic fails to teach:

- the client interface is configured to query a name server to resolve the numeric address to a symbolic name and to provide the symbolic name to the network router client.

Ansell et al. teach what Abjanic fails to teach. Refer to claim 3 for what Ansell et al. teaches.

n. **In regards to claim 58.** A routing device comprising:

- a client interface to receive an operational request from a network router client (figure 1-# 140, figure 3); and
- a system module to process the operational request and to provide an XML-tagged IP address to the client interface (figure 3-#316, 320),

Refer to claim 38 above for more on what Abjanic teaches.

Abjanic fails to teach:

- wherein the client interface is configured to query a domain name server to resolve the IP address to a symbolic name and to provide the symbolic name to the network router client.

Ansell et al. teach what Abjanic fails to teach. Refer to claim 3 for what Ansell et al. teaches.

o. **In regards to claim 65,** Abjanic discloses a system comprising:

- a client interface to receive an operational request from a network router client (figure 1-# 140, figure 3);
- a system module to process the operational request and to provide a numeric address to the client interface in a self-describing format (figure 3-#316, 320); and
- wherein the client interface is configured to provide the response to the network router client.

Refer to claim 38 above for more on what Abjanic teaches.

Abjanic fails to teach:

- a name server to resolve the numeric address to a symbolic name and to provide the symbolic name to the client interface,

Ansell et al. teach what Abjanic fails to teach. Refer to claim 3 for what Ansell et al. teaches.

p. **In regards to claim 66,** Abjanic discloses a system comprising:

- a client interface to receive an operational request from a network router client (figure 1-# 140, figure 3);
- a system module to process the operational request and to provide an XML-tagged IP address to the client interface (figure 3-#316, 320);

- wherein the client interface is configured to provide the response to the network router client (figure 1-bidirectional arrows).

Refer to claim 38 above for more on what Abjanic teaches.

Abjanic fails to teach:

- a domain name server to resolve the IP address to a symbolic name and to provide the symbolic name to the client interface

Ansell et al. teach what Abjanic fails to teach. Refer to claim 3 for what Ansell et al. teaches.

4. Claim 5, 24, and 42 is rejected over Abjanic (US 6,732,175) in view of Mahon et al. (US 6,587,876)

q. **In regards to Claim 5,** the method of claim 2 as modified above fails to disclose, further comprising:

- querying a router policy database,
- receiving from the router policy database an identification of one or more router
- policies associated with the numeric address; and
- Providing the identification of the one or more router polices to the user.

Mahon et al. teaches a system for assigning policies. Policies control the interactions of resources on a network (col 4 lines 5-7). Policies are assigned to targets, which can include a router (figure 2, col 4 lines 52-58, col 5 lines 5-9). A policy may be assigned to a group of targets (col 6

lines 31-35). Associating polices with targets allow administrators to easily view and manage devices (col 7 lines 13-18). Figure 6 shows a policy database (#640) that is queried via a server program (i.e. client interface) (#510). The query contains network addresses (#650) that are dynamically assigned to devices on a network. The server program (#510) receives from the policy database the policies assigned to the IP address and submits this information back to a user (col 8 lines 44-67, col 9 lines 1-6, 39-55). One of ordinary skill in the art at time of the invention would clearly recognize the advantage of the client interface of the Abjanic system to retrieve and display policies associated with a numeric address in order to allow the user to easily view and manage the system as well as provide for simplified control of policy deployment (col 12 lines 17-21).

q. **In regards to claim 24,** Abjanic fails to disclose the processor-readable medium of claim 20, further containing instructions for causing the programmable processor to:

- query a router policy database;
- receive from the router policy database an identification of one or more router policies associated with the numeric address; and

provide the identification of the one or more router policies to the user.

Mahon et al. teach what Abjanic fails to teach. Refer to claim 5 discussions above for what Mahon et al. teach.

r. **In regards to claim 42,** Abjanic fails to disclose the routing device of claim 39, wherein the client interface is further configured to:

- query a router policy database;
- receive from the router policy database an identification of one or more router policies associated with the numeric address; and
- provide the identification of the one or more router policies to the user.

Mahon et al. teach what Abjanic fails to teach. Refer to claim 5 discussions above for what Mahon et al. teach.

5. Claim 8, 14, 18, 27, 32, 40 and 45 are rejected over Abjanic (US 6,732,175) in view of Tout (US 6,829,653)

r. **In regards to claim 8**, The method of claim 7 as modified above fails to disclose:

- wherein the text format is selected from the group consisting of an ASCII format, a UTF-8 format, and a Unicode format .

Tout teaches a numeric address (i.e. IP address) that is an address of an Internet location corresponding to a domain name (col 3 lines 1-3). A domain name server includes a database containing domain names (i.e.

symbolic name) and their corresponding number/address and other domain related information. The system provides reverse look-up functionality of domain names from a corresponding output (i.e. IP number) received (col 8 lines 39-43). Tout further teaches international systems exist and that output (i.e. IP number) is converted to a standard format, which represent all language character sets (abstract) prior to delivery to server (col 4 lines 21-33). ASCII is associated with English-language character sets, while Unicode and UTF-8 service are associated with international/universal character sets (col 4lines 45-49). Tout teaches that non-English output is transformed to a format acceptable by a receiving server and vice versa.

One of ordinary skill in the are at time of the invention would clearly find it obvious to have text format selected from a group consisting of an ASCI, UTF-8 and Unicode format in order to: allow all both non-English and English based system to send output in their own script or language to access information from any server around the world (col 1 lines 48-55, col 2 lines 10-18, figure 2).

s. **In regards to claim 14**, the method of claim 13 as modified above fails to disclose:

- wherein the text format is selected from the group consisting of an ASCII format, a UTF-8 format, and a Unicode format.

Refer to claim 8 in regards to what Tout teaches.

t. **In regards to claim 18,** the method of c1aim 17 as modified above fails to disclose:

- wherein the text format is selected from the group consisting of an ASCII format, a UTF-8 format, and a Unicode format.

Refer to claim 8 in regards to what Tout teaches.

s. **In regards to claim 27,** The processor-readable medium of claim 26 as modified above fails to disclose,

- wherein the text format is selected from the group consisting of an ASCII format, a UTF-8 format, and a Unicode format.

Refer to claim 8 above on what Tout teaches.

t. **In regards to claim 32,** The processor-readable medium of claim 31 as modified above fails to disclose:

- wherein the text format is selected from the group consisting of an ASCII format, a UTF-8 format, and a Unicode format.

Refer to claim 8 on what Tout teaches.

u. **In regards to claim 40,** Abjanic fails to disclose the routing device of claim 39, wherein the client interface is further configured to:

- query a name server;

- receive from the name server a symbolic name associated with the numeric address;
- provide the symbolic name to the network router client.

Ansell et al. discloses in figure 1 a routing device depicted by item 100 that query's a domain name server database. The resolver component, item 106, creates a query to the DNS database containing IP address that it needs to have translated into a domain name (col 3 lines 27-32, col 8 lines 1-3) and returns it to the client via figure 1-#104 and figure 1-#102 of the router and server (i.e. client) figure #150) that sent the initial request (col 6 lines 18-21, col 17 lines 5-20).

One of ordinary skill in the art at time of the invention would clearly find it advantageous to return a symbolic name, based on the numeric address input of the Abjanic system, to the network router client in order to provide a domain names that are more meaningful and easier to remember by a human rather than IP address used by computing/system components (col 8 lines 36-40).

u. **In regards to claim 45** Abjanic fails to disclose the routing device of claim 44,

- wherein the text format is selected from the group consisting of an ASCII format, a UTF-8 format, and a Unicode format.

Tout teaches what Abjanic fails to teach. Refer to claim 8 above on what Tout teaches.

6. **Claim 9, 15,19, 28, 33, 37, 46, 47, 53,59 are rejected over Abjanic (US 6,732,175) view of Chen (US 6,392,997)**

v. **In regards to claim 9**, the method of claim 1 as modified above fails to disclose

- wherein the output comprises a listing of network peers identified by numeric addresses.

Chen teaches a computer network comprising routing domains interconnected by interdomain routers (i.e. router) (figure 1-#200). A key function of the router is to determine the next node to send data and the routers cooperate to determine optimal paths through the computer network (col 4 lines 53- 57). Each router maintains a routing table that list all feasible paths to a particular network and exchange routing information using update messages (i.e. output) (figure 2-#400). The update messages (i.e. output) contains IP addresses of peer routers (col 5 lines 8-67, col 6 lines 1–2).

One of ordinary skill in the art at the time of the invention would cleary find it useful to have output that comprising a listing of network peers IP addresses in order to allow a router to access its neighboring peers through a single interface (col 2 lines 12-19).

w. **In regards to claim 15,** the method of claim 11 fail to disclose, wherein:

- the numeric address identifies a network peer

Chen teaches numeric address identifies network peers (col 5 lines 8-67, col 6 lines 1–2).

Refer to claim 9 above for discussion what Chen teaches.

x. **In regards to claim 19,** The method of claim 16 as modified above,

- wherein the IP address identifies a network peer (col 5 lines 8-67, col 6 lines 1–2).

Refer to claim 9 above for discussion what Chen teaches.

v. **In regards to claim 28,** Abjanic fails to disclose the processor-readable medium of claim 20, wherein the output comprises

- a listing of network peers identified by numeric addresses.

Chen teaches output (i.e. messages) containing a list of IP address (col 5 lines 8-67, col 6 lines 1–2).

Refer to claim 9 on what Chen teaches.

w. **In regards to claim 33,** The processor-readable medium of claim 29, fail to disclose

- wherein the numeric address identifies a network peer.

Chen teaches numeric address identifies network peers (col 5 lines 8-67, col 6 lines 1–2).

Refer to claim 9 above for discussion what Chen teaches.

x. **In regards to claim 37**, the processor-readable medium of claim 34 fails to disclose:

- wherein the IP address identifies a network peer.

Chen teaches IP address identifies network peers (col 5 lines 8-67, col 6 lines 1-2). Refer to claim 9 on what Chen teaches.

y. **In regards to claim 46,** Abjanic fails to disclose the routing device of claim 38,

- wherein the output comprises a listing of network peers identified by numeric addresses.

Chen teaches what Abjanic fails to teach. Refer to claim 9 on what Chen teaches.

z. **In regards to 47**, Abjanic fails to disclose he routing device of claim 38,

- wherein the system module is a BGP protocol module.

Chen teaches that a key function of the router (figure 1- 200) is determining the next node to which data is sent. The routers determine the optimal path through a computer network. A protocol stack within each router performs this. Figure 3 shows a diagram of the protocol stack (col 4 lines 53- 65) executed by the system module components (figure 2- #202,204 col 4 lines 42-48). In particular the Internetwork layer (figure 3-

106) concerns the protocol that routers use to calculate the path through the network. Border Gateway Protocol (BGP) is used to perform the routing through the network and ensures reliable communication among neighboring routers. Chen further teaches in order for router to perform routing operations with the BGP protocol each router maintains a routing table that contain all feasible paths to a particular network. Routers exchange information using routing update messages when their routing tables change. The routing updates allow the BGP routers to construct a consistent and up-to-date view of the network topology (col 5 lines 14-50). One of ordinary skill in the art at time of invention would implement the system module of Abjanic as a BGP protocol module to obtain these advantages.

aa. **In regards to claim 53**, Abjanic fails to disclose the routing device of claim 52,

- wherein the system module is a BGP protocol module.

Chen teaches that which Abjanic fails to teach. Refer to claim 47 discussions what Chen teaches.

bb. **In regards to claim 59**, Abjanic fails to disclose the routing device of claim 58,

- wherein the system module is a BGP protocol module.

Chen teaches that which Abjanic fails to teach. Refer to claim 47 discussions what Chen teaches.

7. Claim 35 and 36 is rejected over Abjanic (US 6,732,175) in view f Tan (US 6,314,469)

y. **In regards to claim 35,** Abjanic fails to disclose the processor-readable medium of claim 34,

- further containing instructions for causing the programmable processor to render the IP address in ASCII format before querying the domain name server.

Tan et al. discloses a multilingual Domain name system that allows users to enter domain names in non-Unicode or ASCII encodings (abstract). The system consists of iDNS server (figure 1-#16) that converts the encoding of the Domain name to a universal linguistic encoding type (i.e.UTF-8, Unicode) and translates the universal linguistic encoding type to an ASCII representation (col 3 lines 1-10). Tan also teaches the domain name received in a digital representation to the iDNS server (col 3 lines 62- 64). After the request in translated the IDNS server sends the request to the DNS server (figure 1-#18). The iDNS server then resolves the domain name to an IP address and sends the result back to user. Tan is silent on the rendering of an IP address to a domain sever, however this feature is deemed inherent as reverse DNS lookups are also known in the art which permit an IP address to be translated into a symbolic

meaningful name to a user. The system of Tan can also be used for this purpose.

Tan teaches ASCII, Unicode and UTF 8. ASCII is. Domain Name systems are based in English and use ASCII characters (col 1 lines 21-31). Unicode provides the capacity to encode all the characters used in the written languages of the world. Unicode also endorses formats that include UTF 8(col 8 lines 3-5). UTF-8 is a way of transforming all Unicode characters into variable encoding bytes. It has the advantages that UFT-8 has the same byte value of ASCII (col 8 lines 18-29)

One of ordinary skill in the art at time of the invention would clearly find it advantageous to format the IP address of Abjanic into ASCII in order to permit non-ASCII request to be sent to DNS servers for processing and refrain from difficulties that would be caused by implementing conventional (i.e. ASCII based) DNS servers as non-ASCII based (abstract lines 1-5, 12-19, col 2 lines 41-50) and allows users to use Domain Names in non-ASCII encodings (col 2 lines 56-65).

cc. **In regards to claim 36,** Abjanic fails to disclose the processor-readable medium of claim 35 as modified above:

- wherein the text format is selected from the group consisting of an ASCII format, a UTF-8 format, and a Unicode format.

Tan et al. teach what Abjanic fails to teach. Refer to claim 35 above on what Tan et al. teach.

8. Claim 48-51, 54-57, 60-63 are rejected over Abjanic (US 6,732,175) view of Vairavan (US 2002/0083344).

dd. **In regards to 48.** The routing device of claim 38,

- wherein the system module is an OSPF protocol module.

Vairavan discloses a routing device (figure 1, figure 2) that contains modules (figure 2-#215, 210 figure 5) that contains a routing manager (figure 5-#520) which provides routing instructions and protocols. The routing manager also supports many types of protocols such that the routing device may route many types of packets ([0122]). The routing manager supports the OSPF and other interior protocols that routes packets to a destination using the shortest path across the network ([0125]). One of ordinary skill in the art at time of the invention would implement the system module of Abjanic as an OSPF protocol module to obtain these advantages.

ee. **In regards to claim 54** The routing device of claim 52,

- wherein the system module is an OSPF protocol module.

Vairavan teach what Abjanic fails to teach. Refer to claim 48 discussions above on what Vairavan teach.

ff. **In regards to claim 60.** The routing device of claim 58,

- wherein the system module is an OSPF protocol module.

Vairavan teach what Abjanic fails to teach. Refer to claim 48 discussions above on what Vairavan teach.

gg. **In regards to 49**, Abjanic fails to disclose the routing device of claim 38,

- wherein the system module is a firewall filter module.

Vairavan discloses a routing device (figure 1, figure 2) that contains modules (figure 2-#210, #215 figure 3) that contains a firewall module (figure 3-#310) which contains a network intrusion mechanism that monitors packets transmitted to or from specific devices [0090]. Firewall filtering rules are applied to packets passing though the routing device. The firewall (figure 3-#310) applies various firewall-filtering rules (figure 10-#1010) to the packet such as content and state filtering. If the packet fails these rules, it is discarded [0143]. One of ordinary skill in the art at time of the invention would implement the system module of Abjanic as a firewall-filter module in order to obtain these advantages and prevent unauthorized access to a network ([0090]).

hh. **In regards to claim 55,** Abjanic fails to disclose the routing device of claim 52,

- wherein the system module is a firewall filter module.

Vairavan teach what Abjanic fails to teach. Refer to claim 49 discussions above on what Vairavan teach.

ii. **In regards to claim 61,** Abjanic fails to disclose the routing device of claim 58,

- wherein the system module is a firewall filter module.

Vairavan teach what Abjanic fails to teach. Refer to claim 49 discussions above on what Vairavan teach.

jj. **In regards to claim 50**, Abjanic The routing device of claim 38, further comprising:

- a management server module communicatively coupled to the client interface (figure 3-#316).

  Abjanic teaches a management server module (figure 3-316) that receives output from an XML parser (i.e. xml api), which also is communication with client devices (figure 3). The module manages queries, performs routing based on routing decisions and transmits output to an output interface (figure 3-320).

kk. **In regards to claim 56.** The routing device of claim 52, further comprising:

- a management server module communicatively coupled to the client interface.

Vairavan teach what Abjanic fails to teach. Refer to claim 50 discussions above on what Vairavan teach.

ll. **In regards t claim 62**. The routing device of claim 58, further comprising a management server module communicatively coupled to the client interface.

Vairavan teach what Abjanic fails to teach. Refer to claim 50 discussions above on what Vairavan teach.

mm. **In regards to claim 51 Abjanic is silent on the** routing device of claim 38, further comprising:

- at least one of a chassis module, a device configuration module, a routing protocol module

Vairvaran teaches the device configuration module (i.e. system processor) that configures each of the components within the device to function properly as well as coordinates and supervises each of the components [0026]. Vairvaran also teaches a routing protocol module (i.e. packet processor) supports various routing protocols and methods and performs routing management functions on packets received from access device cards (i.e. client interface) ([0024]). Vairvaran is silent on the chassis module, however Vairvaran teaches access control devices within the routing device that support various devices that may interact with the router. Varivaran teaches that the access devices may be plug and play devices, hot swap devices or any other device that allows them to be easily removed and upgraded ([0053]). One of ordinary skill in the art at time of the invention would recognize the advantage of

implementing the routing device of Abjanic to contain a chassis, device configuration and routing protocol modules in order to provide a routing device capable of interfacing with different types of networks while still providing high performance network functionalities, security maintenance (i.e. firewall filter) and routing management with a network environment.

nn. **In regards to claim 57,** The routing device of claim 52, further comprising:

- at least one of a chassis module, a device configuration module, and a routing protocol module.

Vairavan teach what Abjanic fails to teach. Refer to claim 51 discussions above on what Vairavan teach.

oo. **In regards to claim 63.** The routing device of claim 58, further comprising:

- at least one of a chassis module, a device configuration module, and a routing protocol module.

Vairavan teach what Abjanic fails to teach. Refer to claim 51 discussions above on what Vairavan teach.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Domain Name Resolution

- Swenson et al. (US 6724724 B1) System and method for resolving an electronic address
- Ramanathan (US 6286047 B1) Method and system for automatic discovery of Network services
- Wang (US 6614774 B1) Method and system for providing wireless mobile server and peer-to-peer services with dynamic DNS update
- Minkin (US 6826698 B1) System, method and computer program product for rule based network security policies

Multilingual DNS Service

- Pouzzner (US 20040044791 A1) internationalized domain name system with interactive conversion

Router Management

- Rakoshitz et al. (US 6816903 B1) Directory enabled policy management tool for intelligent traffic management
- Leong et al. (US 6269398 B1) Method and system for monitoring remote routers in networks for available protocols and providing a graphical representation of information received from the routers
- HORIUCHI et al. (US 20020040396 A) Policy based information management system for corporate businesses, distributes input policy information, policy evaluation information and policy adjustment information to router

- Stevenset al. (US 6539425 B) Network device operating method e.g. for routers in Internet, involves receiving policy information from network policy applications associated with function values of prestored state attributes of network device

Client/Sever and Routing Systems

- Jungck (US 6829654 B1) Apparatus and method for virtual edge placement of web sites
- Colby (US 6006264 A) Method and system for directing a flow between a client and a server

XML

- Golden, Richard (US 20020073399 A1) Method, computer system and computer program product for processing extensible markup language streams

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn F. Fleary whose telephone number is (571) 272-7218. The examiner can normally be reached on 8:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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